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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,767	03/23/2007	Mitsuo Wada	292214US0PCT	6369

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EXAMINER	
VAJDA, PETER L	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
04/29/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,767	WADA ET AL.	
	Examiner	Art Unit	
	PETER L. VAJDA	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/13/2009, 02/01/2007, 01/03/2007, 11/29/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant recites that M^1 and M^2 be any arbitrary atom or atomic group that is capable of binding to a phthalocyanine. However, the courts have ruled that, "it is necessary that the product be described with sufficient particularity that it can be identified so that one can determine what will and will not infringe." *Benger Labs, Ltd v. R.K. Laros Co.*, 135 USPQ 11, *In re Bridgeford* 149 USPQ 55, *Locklin et al. v. Switzer Bros., Inc.,* 131 USPQ 294. Furthermore, "Reciting the physical and chemical characteristics of the claimed product will not suffice where it is not certain that a sufficient number of characteristics have been recited that the claim reads only on the particular compound which applicant has invented." *Ex parte Siddiqui*, 156 USPQ 426, *Ex parte Davission et al.*, 133 USPQ 400, *Ex parte Fox*, 128 USPQ 157. As written, the claims are indefinite because they do not specifically state what atoms or atomic groups are represented by M^1 and M^2 and could include species that the applicant has not described in the specification and therefore has no possession of. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 06-212089.

JP '089 teaches a photoconductor comprising a phthalocyanine composite material comprising a phthalocyanine compound of formula (1) with a phthalocyanine compound of formula (2), (3) or both ([0005-6]). Formula (1) represents an unsubstituted phthalocyanine having the same structure as the applicant's formula (1) and formulas (2) and (3) represent phthalocyanine compounds having halogen substituents on the phenyl rings of the phthalocyanine ring system and corresponds to the applicant's formulas (2) ([0007]). JP '089 teaches that formula (2) comprises at least one halogen atom and that formula (3) comprises at least four halogen atoms and therefore both formulas satisfy the applicant's formula (2) of pending claim 1. As the central metal atom ligated by the phthalocyanine ring, JP '089 teaches the use of aluminum (a group 13 element) and a oxides or halogenides thereof ([0008]). Therefore, formulas (1) and (2) of JP '089 also satisfy the applicant's formulas in pending claim 4. Furthermore, JP '089 further teaches that the phthalocyanine composite be included in a photosensitive layer provided on a conductive substrate in the photoconductor ([0017]).

The applicant's claim 3 is recited as product-by-process claim. In a product by process claim, so long as the product has the same claimed composition or properties, the method by which it was made or by which the properties were tested is not material. According to the MPEP, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." (MPEP 2113 [R-1], see In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966).

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 09-258466.

JP '466 teaches that a photoreceptor may be provided with good picture forming capabilities and high sensitivity while resisting deterioration from a high electrostatic property and a low rest potential by providing the photosensitive layer with a fluorinated chlorogallium phthalocyanine ([0007-8]). Furthermore, the photoreceptor is taught to be imparted with high stability, does not produce a fall or greasing of an image concentration over a long period of time by virtue of the fluorinated chlorogallium phthalocyanine. A general structure of the chlorogallium phthalocyanine is provided in Formula 2, wherein the phenyl rings of the phthalocyanine moiety are taught to be substituted with electron withdrawing groups ([0010-11]). JP '466 specifically teaches the use of fluorine atoms as being especially preferred and further teaches that the

phenyl rings preferably be substituted with 2 or more fluorine atoms ([0015]). Therefore, JP '466 teaches the same structure as that disclosed by the applicant in pending claim 9. Furthermore, JP '466 teaches that the fluorinated chlorogallium phthalocyanine be provided in a photosensitive layer disposed at least on a conductive substrate ([0013]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 06-212089.

The complete discussion of JP '089 above is included herein. JP '089 does not, however, specifically teach that the phthalocyanine composite have a eutectic-crystalline structure. However, the different phthalocyanine compounds taught to form the composite by JP '089 were treated in the same manner as the different phthalocyanine compounds taught by the applicant in forming the composite and therefore would be expected to inherently have a eutectic-crystalline structure.

The applicant teaches that a nonsubstituted phthalocyanine compound and a substituted phthalocyanine compound are added to a paint shaker, while either dispersed or dissolved in a solvent and are then agitated with glass beads according to

the conditions represented in Table 2 and Table 3 (p. 32-34 [0464-470]). JP '089 teaches the same process of mixing the different phthalocyanine compounds together in a solvent and then milling them using a mechanical mixer, such as a ball mill ([0014-15]). Therefore, since JP '089 teaches the same method of making the phthalocyanine composite from the different phthalocyanine compounds as the applicant, the composite of JP '089 would be expected to inherently have a eutectic-crystalline structure. Furthermore, the applicant teaches that when a phthalocyanine composite is in a eutectic-crystalline state, it mainly exhibits the crystalline structure of any one of the phthalocyanine crystals contained in the phthalocyanine composite and that the X-ray spectrum pattern exhibited by the phthalocyanine composite of the present invention in a eutectic-crystalline state can be a spectrum pattern of any known crystal form (p. 10-11 [0202-204]). Therefore, since X-ray spectrum pattern of the composite in a eutectic state will take the form of the known phthalocyanine crystal, it will be expected to have the same properties as that phthalocyanine crystal form. Therefore, crystalline phthalocyanine composite of JP '089 will inherently have the same properties as the applicant's eutectic-crystalline composite. This is supported by the applicant's teaching that the phthalocyanine composite in a eutectic-crystalline will have analogous properties to the phthalocyanine whose crystal form it shares (p. 11 [0204]). Furthermore, since the phthalocyanine compounds taught by JP '089 are taught to be the same type of composites taught by the applicant, they would be expected to be eutectic complexes.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-212089 in view of Shigezaki *et al.* (US Patent Publication 2004/0224245).

The complete discussion of JP '089 above is included herein. While JP '089 teaches the use of a photoreceptor to be used in an image forming apparatus, they do not teach the particular components of such an apparatus or a process cartridge.

Shigezaki *et al.* teach an electrophotographic photoreceptor, an electrophotographic member, a process cartridge, and an image forming apparatus (Abstract). Furthermore, the process cartridge of the invention is provided with at least one device selected from the group consisting of an electrophotographic photoreceptor, the charging members and the cleaning members (p. 18 [243]). The process cartridge supplies the advantage of being able to exchange consumable parts in an image forming apparatus, if necessary (p. 18 [0242]). Shigezaki also teaches an image forming apparatus which comprises a photoreceptor, a charging member, an exposure member, a developing member, a transfer member, an intermediate transfer member and a cleaning member (p. 18 [0246-247]).

Therefore, since the photoreceptor taught by JP '089 is intended for use in an imaging apparatus, it would have been obvious to any person of ordinary skill in the art at the time of invention to employ the employ the photoreceptor of JP '089 in the process cartridge and image forming apparatus of Shigezaki *et al.* Use of this photoreceptor in the imaging apparatus taught by Shigezaki would have been obvious since the intended purpose of the photoreceptor was for use in such an apparatus and

since it is well known in the art to use such photoreceptors in image forming apparatuses. Furthermore, it would have been obvious to employ a process cartridge with the apparatus since its removable nature would have improved accessibility to the various parts of the apparatus.

Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-258466 in view of Shigezaki *et al.* (US Patent Publication 2004/0224245).

The complete discussion of JP '466 above is included herein. While JP '466 teaches the use of a photoreceptor to be used in an image forming apparatus, they do not teach the particular components of such an apparatus or a process cartridge.

Shigezaki *et al.* teach an electrophotographic photoreceptor, an electrophotographic member, a process cartridge, and an image forming apparatus (Abstract). Furthermore, the process cartridge of the invention is provided with at least one device selected from the group consisting of an electrophotographic photoreceptor, the charging members and the cleaning members (p. 18 [243]). The process cartridge supplies the advantage of being able to exchange consumable parts in an image forming apparatus, if necessary (p. 18 [0242]). Shigezaki also teaches an image forming apparatus which comprises a photoreceptor, a charging member, an exposure member, a developing member, a transfer member, an intermediate transfer member and a cleaning member (p. 18 [0246-247]).

Therefore, since the photoreceptor taught by JP '466 is intended for use in an imaging apparatus, it would have been obvious to any person of ordinary skill in the art

at the time of invention to employ the employ the photoreceptor of JP '466 in the process cartridge and image forming apparatus of Shigezaki *et al.* Use of this photoreceptor in the imaging apparatus taught by Shigezaki would have been obvious since the intended purpose of the photoreceptor was for use in such an apparatus and since it is well known in the art to use such photoreceptors in image forming apparatuses. Furthermore, it would have been obvious to employ a process cartridge with the apparatus since its removable nature would have improved accessibility to the various parts of the apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER L. VAJDA whose telephone number is (571)272-7150. The examiner can normally be reached on 7:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/
Supervisory Patent Examiner, Art Unit 1795

/PLV/ 4/22/2010